

ONBOARD MULTIMEDIA CACHING FOR COMMUNICATION SATELLITESABSTRACT OF THE DISCLOSURE

A caching subsystem and method for a communication satellite includes an uplink demodulator that produces demodulated data on a demodulated data output for storage in a memory cache. This also includes a switched-router coupled to the solid state recorder. A processor outputs a first preselected time delay control signal to the memory cache to generate a first time delayed data stream. In addition, the processor subsequently outputs a second preselected time delay control signal to the solid state recorder to generate a second time delayed data stream. The solid state recorder and processor act in concert to provide a variable time delay pipeline for program data. The uplink demodulator also produces a program data identifier and a delivery request. The processor outputs a control signal to the solid state recorder to generate independent downlink data streams from the program data at delivery times and delivery dates specified by delivery requests.